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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,446	07/13/2006	Beat Weber	753-61 PCT/US	9882
23869	7590	06/28/2007	EXAMINER	
HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791			O DELL, DAVID K	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/565,446	WEBER ET AL.
	Examiner David K. O'Dell	Art Unit 1609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 June 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-17 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-17 are pending in the application.
2. This application is the National Stage of International Application No. PCT/CH2004/000408, filed June 29, 2004, which claims the benefit of CH 1274/03, filed July 21, 2003.

Response to Arguments

Each rejection will be discussed in turn and restated with response to applicant's remarks.

3. Claim 18 has been withdrawn, and all rejections of claim 18 are withdrawn.
4. The rejection of claim 1 under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections is withdrawn.

Claim Rejections – 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. The rejection of claims 14 & 16 under 35 U.S.C. 112, first paragraph is maintained, because the specification, while being enabling for the use of Pd catalysts, it does not reasonably provide enablement for the exhaustive list of metals/complexes so claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. Claim 14 recites that the dehydrogenation catalyst is "selected from compounds of the metals of Group VIII elements, in particular from iron, ruthenium and osmium; cobalt, rhodium, and iridium; nickel,

Art Unit: 1609

palladium and platinum; copper, silver and gold preferably from compounds based on rhodium, palladium and platinum." None of these compounds have been shown to promote the reaction of the process in claim 1, except a handful of Pd complexes. The nature of the catalyst is essential to the reaction and the selection is critical. While applicant considers this reaction a dehydrogenation, it is better viewed as dehydrosilylation or in one case a dehydrocarbylation. While the mechanism is not known with certainty, this is homogenous catalysis and the substrate must intimately interact with the catalyst in an ordered fashion. Tsuji, has proposed a mechanism for these reactions in his paper *Tetrahedron Letters* 1984, 25, 4783, where some of the reactions used in this application were revealed for the first time. Pd is peculiar in that it has the remarkable ability to shuffle between the 0 and +2 oxidation state readily, making complexes of Pd the only known catalysts for this reaction. Claim 16 recites using a diamine ligand to affect "thermal stabilisation" no evidence is provided that such an addition would stabilize the catalyst.

Applicant's arguments filed June 8, 2007 have been fully considered in regard to claims 14 and 16 but they are not found persuasive. The traversal is on the grounds that the rejection is "unsubstantiated". The examiner has relied on the reference of Tsuji in regards to the mechanism of the reaction and sound scientific reasoning to support the conclusion that the nature of the catalyst is critical. The applicants have stated that "the reaction" is a dehydrogenation, while the examiner has pointed out that this is incorrect. The process in question is in fact two reactions: 1) removal of a proton with base and reaction of the enolate with a trialkylsilylchloride to produce a silyl ketene aminal (Formula III) which is step A. 2) Dehydrosilation (or dehydrocarbylation) catalyzed by palladium with co-oxidant (See

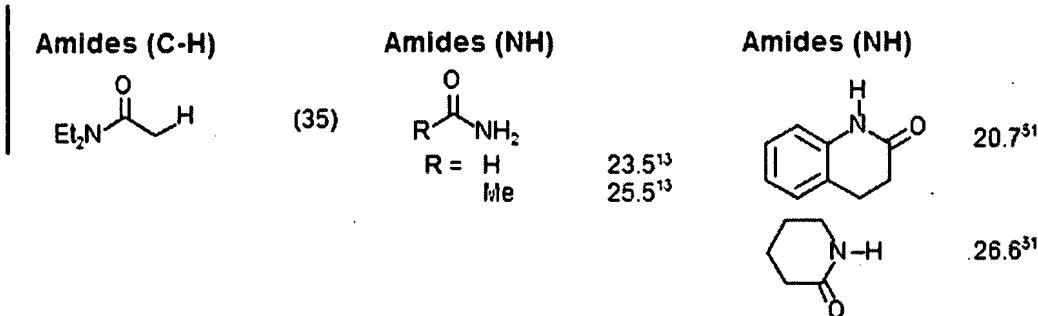
Art Unit: 1609

Schemes 1 and 2 *infra* for a graphical representation). It is very apparent that Pd is mediating/catalyzing a dehydrosilation not a “dehydrogenation”. The contention that the mechanism is “irrelevant” for enablement purposes is incorrect; it is the most relevant consideration here. While the overall two-step process is in fact a dehydrogenation the key step is a dehydrosilation of the compound of Formula III, and mischaracterizing the reaction of step B) as “a dehydrogenation” does not make it a “dehydrogenation”. It is still a dehydrosilation mediated by complexes of Pd not “dehydrogenation catalysts of Group VIII metals”, a scientific fact.

6. The rejection of Claims 1-17 under 35 U.S.C. 112, first paragraph is maintained, because the specification, while being enabling for one example (and possibly other alkyl) does not reasonably provide enablement for the exhaustive list of substituents given. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. While applicant has provided for the preparation of a handful of silyl ketene amines, the scope of what is claimed does not enable one to practice the invention as claimed. The applicant has argued that the grounds of the previous rejection are “irrelevant”. The applicant has further stated that NH or OH silylation will occur. The OH is in fact not silylated. There is no OH in the compounds of the instant case (Formula II). The amide (Formula II) is deprotonated by base to generate an enolate anion, it is this anion (proton removed) that is silylated. Moreover protection of the NH of the amine is required in order to prevent deprotonation of the amide and silylation of the amide nitrogen. Amides are well known to have pKa's lower than protons α -to carbonyls.

Selected pKa's:

Art Unit: 1609



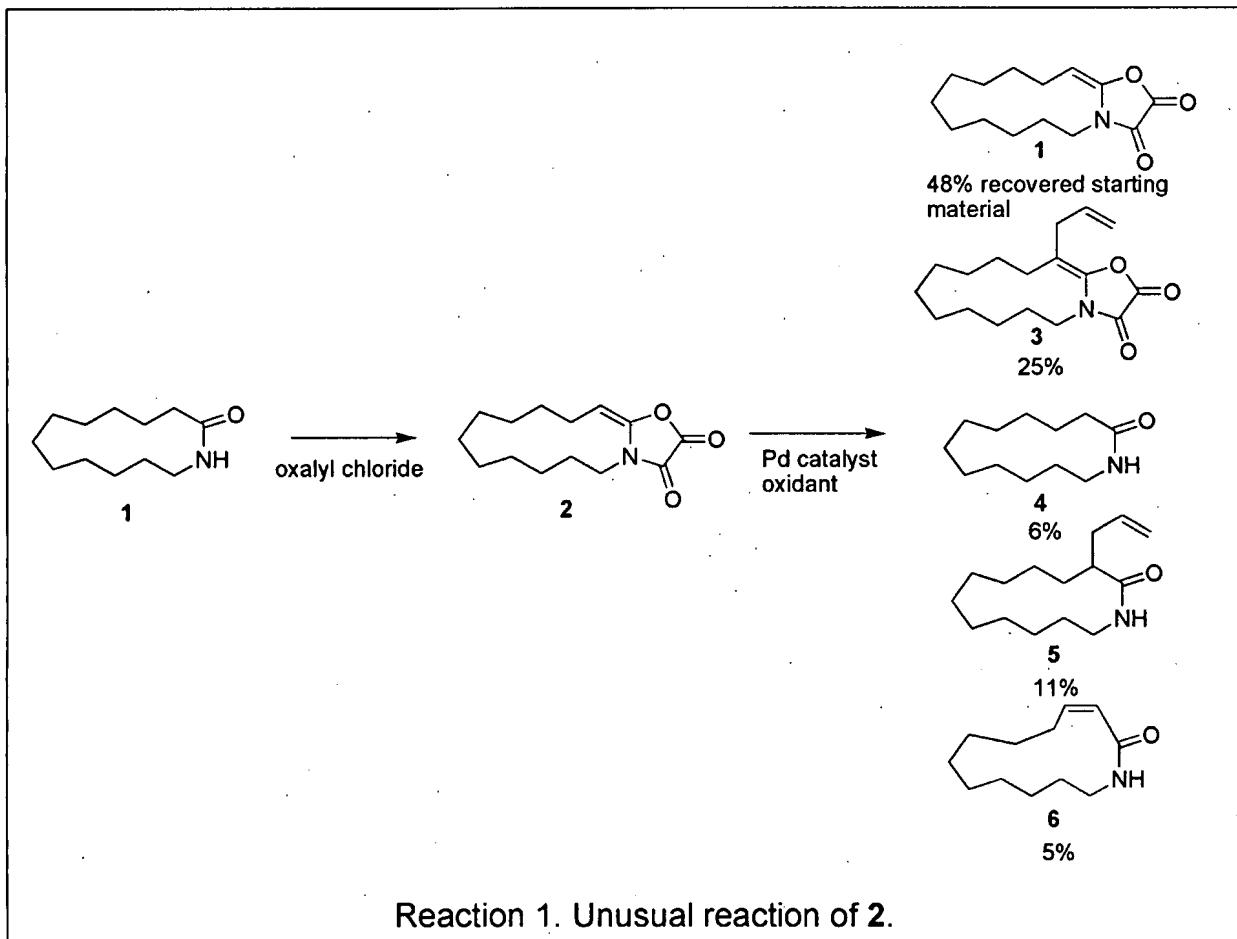
The references below clearly show this fact as does applicants own disclosure where the amide nitrogen is always protected as a carbamate (no H atom present on an amido nitrogen). For example, amides are well known to undergo both N- or C-silylation as well as O-silylation and under the conditions given it has been shown that for certain substrates under the scope of the claims, C-silylation will occur (Bergmann, H. J.; Maryhofer, R.; Otto, H. H. *Archive der Pharmazie (Weinheim)* 1986, 319, 203 abstract provided). The C-silylated species have never been shown to undergo this reaction. Where R₃ is H, then N-silylation can occur (Thomas, E. J.; Whitehead, J. W. F. *J. Chem.Soc. Perkin Trans. 1* 1989, 507). The N-silylated species have never been shown to undergo this reaction either. Thus applicants conditions cannot be used to prepare the substrates required for the scope of the claims. As per MPEP:

A key issue that can arise when determining whether the specification is enabling is whether the starting materials or apparatus necessary to make the invention are available. In the biotechnical area, this is often true when the product or process requires a particular strain of microorganism and when the microorganism is available only after extensive screening. The Court in *In re Ghiron*, 442 F.2d 985, 991, 169 USPQ 723, 727 (CCPA 1971), made clear that if the practice of a method requires a particular apparatus, the application must provide a sufficient disclosure of the apparatus if the apparatus is not readily available. **The same can be said if certain chemicals are required to make a**

compound or practice a chemical process. In re Howarth, 654 F.2d 103, 105, 210 USPQ 689, 691 (CCPA 1981). (emphasis added)

The examiner finds the oxidation of the vinylidene 1,3-oxazol-2,3-dione **2**, with Pd/oxidants (Reaction 1) incredulous. While the Merck Patent (EP-A-0 428 366) [cited on the IDS previously cited as EP-A-0 478 366 clearly identified as Merck patent] states that an amine base is necessary applicants have omitted this step, and one can only wonder where the 2 equivalents of HCl generated from oxallyl chloride went. In applicants ^{13}C NMR the methine carbon of the exocyclic double bond of **2** appears to be absent, so the correct identification may be in question. It is not clear what the applicant hoped to accomplish by reacting **2** in the same fashion as the silyl ketene aminals, but the product mixtures are extremely complex.

Art Unit: 1609



It is likely that what applicant has described as compound 2 is in fact the hydrochloride salt. Product 5 can be seen as arising from coupling of the starting material with decarboxylated allyl carbonate as described by Tsuji et. al. *Tetrahedron Letters* 1984, 25, 4783, which is expected. The production of 3 could be rationalized mechanistically, but such discussion is not appropriate here. For 6 the tenuous identification on MS data alone is questionable. It seems very likely that the product described as 6 is actually a mixture of regiosomeric olefins (i.e. 3,4,5,6 double bond etc.), since Pd is well known to promote such isomerizations (Harrod, J. F.; Chalk, A. J. J. *Am. Chem. Soc.* 1964, 86, 1776). The aforementioned questionability of the identity of the starting material 2 and its likelihood of being contaminated with large amounts of HCl add to the

Art Unit: 1609

problem and are a likely culprit for the production of 4. No data has been provided for 4, but it should have been compared to an authentic sample. The product 6, which is the desired product, is analogous to the reaction described by Minami, et. al. *Tetrahedron* 1986, 42, 2971-2977, pg. 2974 column 2, which employs the vinyl acetates as substrates. The applicants may need to add Bu₃SnOMe in order to accomplish the transformation. Applicants transformation is of course not catalytic. Regardless, the low yield and the absence of more working examples fail to enable this transformation for the scope as claimed.

The factors outlined in *In Re Wands* are appropriate, and in particular, As per the MPEP 2164.01 (a): “A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors, the specification , at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. In re Wright 999 F.2d 1557,1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993).” It is very clear that one could not make/use this very broad invention that has few working examples in this unpredictable art without undue experimentation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. The rejection of claim 1 is maintained under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the instant case the method of claim 1 step (C) recites “optionally removing, if present, the protective group R8”. The group R8 is removed in every case in the instant invention and there is no case where it is an optional substituent, or optionally

Art Unit: 1609

removed. The concomitant removal of R₈ defines the process as disclosed (i.e. dehydrosilylation (loss of HSiR₃ where R₈ is SiR₃) or a dehydrocarbonylation where R₈ is carbonyl etc.). The applicant has traversed this rejection on the grounds that R₈ "is in fact optional" with reference to pg. 4 line 10-11. Reference to a statement in the specification that says the same thing does not render something clear when in fact it is not clear. How can compounds of Formula I be produced from compounds of Formula III without removing R⁸? It is clear that no optional group can be removed if it is already removed. Is this a suggestion that a group can be removed twice? How can a group be removed after it has been removed? R⁸ is removed (along with a hydrogen atom) to make compound I. Is there a case when R⁸ is not present?

Claim Rejections – Non-Statutory Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. The rejection of Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending

Art Unit: 1609

Application No. 10/521,421. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed process embraces the process claimed in the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections – 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Bhattacharya et. al. U.S. Patent 5,084,574 in view of Minami et. al. *Tetrahedron* 1986, 42, 2971, Ito et. al. *J. Org. Chem* 1978, 43, 1011, and Kawanaka et. al. *Bioorg. Med. Chem. Lett.* 2002, 12, 2291. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

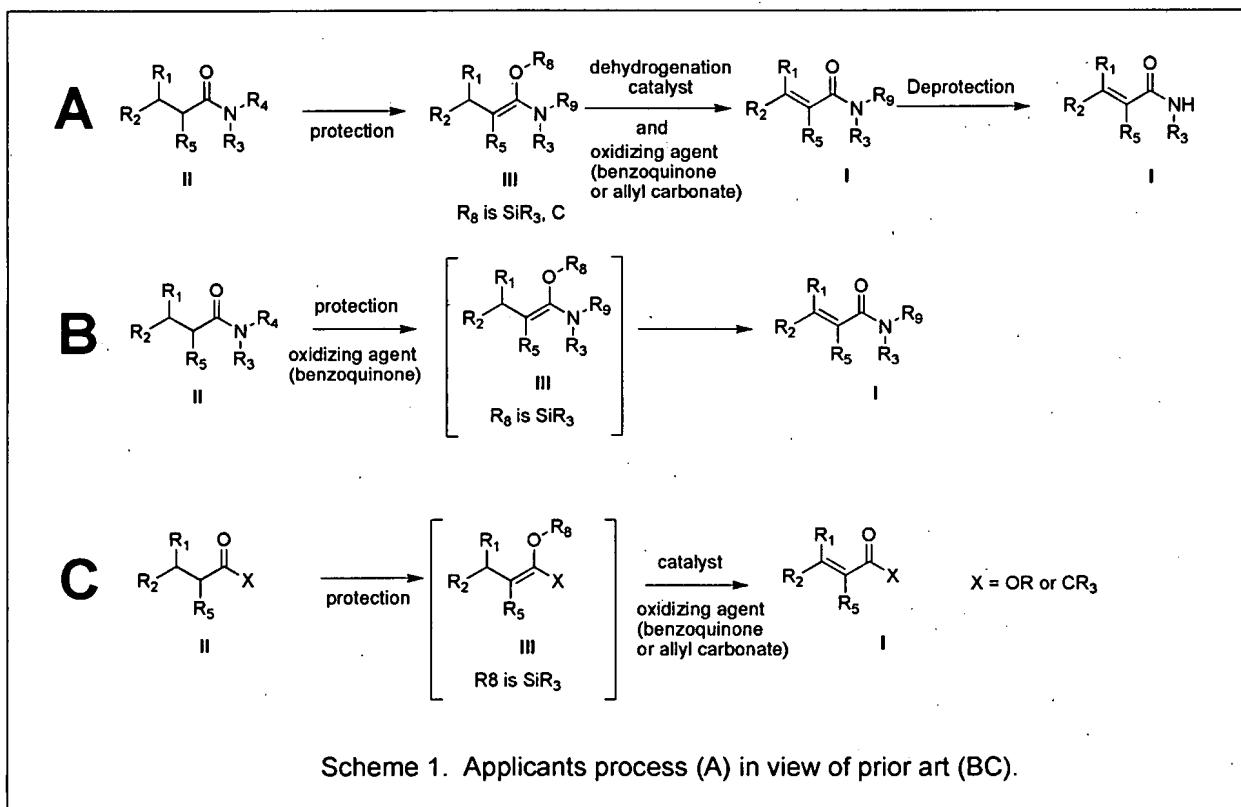
- A) Determining the scope and contents of the prior art.
- B) Ascertaining the differences between the prior art and the claims at issue.
- C) Resolving the level of ordinary skill in the pertinent art.
- D) Considering objective evidence present in the application indicating obviousness or nonobviousness.

A) The prior art of Bhattacharya et. al. teaches that silyl ketene aminals can be oxidized to α - β unsaturated amides with quinone based oxidants, including benzoquinone, DDQ, and others. This reaction can be viewed as a dehydrosilylation. Ito et. al. teach that silyl enol ethers derived

Art Unit: 1609

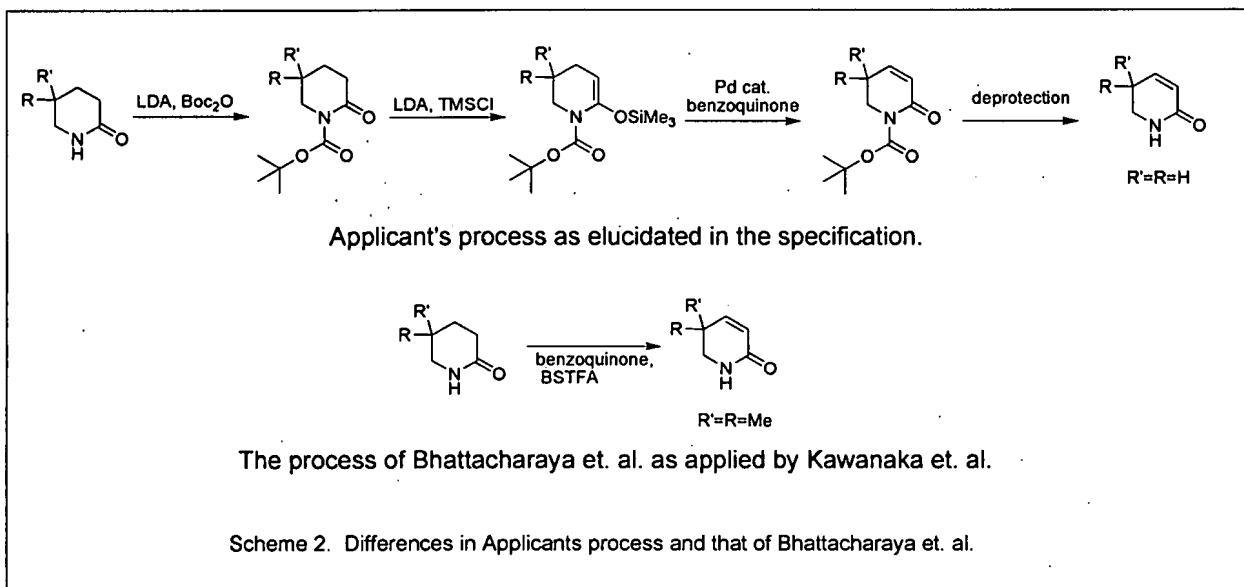
from ketones are oxidized to α - β unsaturated ketones with Pd catalysts and a quinone co-oxidant. Furthermore, Minami et. al. teach that silyl ketene acetals are oxidized by Pd catalysts to α - β unsaturated esters, and that the reaction can be made catalytic by the use of allyl carbonates.

B) The difference in the claims at issue and the prior art are graphically illustrated in Scheme 1. Claim 1 from which all the other rejected claims depend (2-17) recites "reacting compounds of the general formula (II)....to produce a compound of the general formula III...reacting " III "in the presence of a dehydrogenation catalyst and" "an oxidising agent, such as optionally substituted benzoquinone, allyl methyl carbonate..." and removal of protective groups. This is graphically illustrated as A. The process of Bhattacharya et. al., is shown in reaction B. The processes of Minami et. al. and Ito et. al. are shown as C.



Art Unit: 1609

The process of the instant invention (**A**, where R₈ is SiR₃) differs from the process of Bhattacharya et. al. (**B**), in that everything has been conducted in one pot and no hydrogenation catalyst is necessary. In this case the reagent bis(trimethylsilyl)trifluoroacetamide (BSTFA) selectively forms a TMS ether in-situ, as has been shown in mechanistic studies (Bhattacharya et. al. *J. Am. Chem. Soc.* 1988, 110, 3318). This TMS ether then undergoes subsequent benzoquinone mediated dehydrosilylation. Applicant's process has used multiple steps to form the TMS ether in a conventional manner (N-protection, LDA, TMSCl), which is the same reactive intermediate in the process of Bhattacharya. As illustrated in Scheme 2, the Bhattacharya process has been used by Kawanaka et. al. (*Bioorg. Med. Chem. Lett.* 2002, 12, 2291) to prepare essentially the same product (R'=Me) that applicant has as an example in the disclosure (R'=H).



In addition to applicant's alternate route to form a TMS ether, applicant has added a Pd catalyst to the reaction. It does not appear to be necessary in this case as benzoquinones themselves can mediate the dehydrosilylation without a catalyst.

Art Unit: 1609

Applicant's process can also be viewed as an obvious variation of the work of Ito et. al. and Mianmi et. al. Applicant has recited reaction conditions exactly as those disclosed by both processes. The process of Ito uses Pd catalysts and a benzoquinone co-oxidant, while Minami et. al. employs Pd catalysts and allyl carbonates. In the case of Ito, X is CR₃ (Scheme 1, C). In the case of Minami, X may be OR or CR₃. Applicant has simply changed X to NR₂. Since the moiety X is not actively involved in the process or undergoing transformation, it can be viewed as a spectator group. The use of amides necessitates the protection/deprotection sequence in order to form the desired silyl ketene aminals and would have been obvious to one of ordinary skill in the art.

C) The level of ordinary skill in the art is high. Those who conduct and design organic syntheses typically have Ph.D.'s and years of experience and are aware of methods to introduce double bonds α to carbonyls. While there are a myriad of ways to achieve this transformation (phenylselenation/oxidative elimination, etc.) one would immediately recognize that the transformations of Minami and Ito could be applied to silyl ketene aminals as well as other compounds (silyl ketene thioacetals for instance). The opinion set forth in *In re Surrey et. al.* (CCPA 1963) 319 F2d 233, 138 USPQ 67 is illustrative of the reasoning here:

Mere novelty of one of the reactants does not render an otherwise conventional chemical process patentable, since it does not impart anything to process which is unobvious to one skilled in the art; it constitutes no more than an obvious application of old process to new compounds; from point of view of chemical reaction and reactive groups concerned, same reaction takes place.

The opinion set forth in *In re Larsen* (CCPA 1961) 292 F2d 531, 130 USPQ 209 is also relevant :

A case in point is *Wirebounds Patents Co. et al. v. H.R. Gibbons Box Co.*, 25 F.2d 363 (CCA 7th Circuit). In holding the method claims there involved unpatentable, the court said: Moreover, the method patent contains nothing but the natural and

Art Unit: 1609

obvious method of producing the box. It cannot be considered invention to describe and claim a process, or to produce a machine, or formulate a method which any successful mechanic would produce when required to effectuate a given result. The process claims define, in effect, only the reaction of A with B to produce AB, the reaction admittedly being old except for the selection of A and B from the mass of known materials available. Though they point out novel subject matter, these claims, tested against the prior art, do not define anything unobvious to one of ordinary skill in this art.

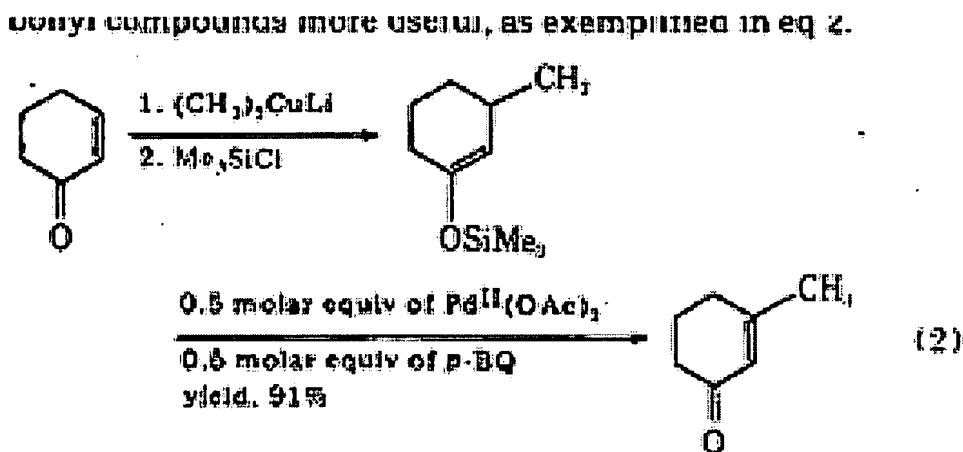
This art is chemistry. Were we in a mechanical art, **I think no one would trouble to argue that every time a new tool or machine is invented one can obtain process claims directed to nothing more than the obvious steps of selecting the materials, forming the parts on suitable machines, and assembling them in their operative relationship. I can see no distinction in principle here.** Yet that is what applicant contends in advancing in his conclusion. (emphasis added)

It is therefore resubmitted that the claims are properly rejected as unpatentable over what is already known in the art, and that they recite no more than the obvious variation of an old reaction.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the process has been known for a very long time. The applicant has stated in the arguments that "they respectfully disagree with the Examiner's characterizations of the disclosures of the Bhattacharya, Minami, and Ito references. Indeed, none of the references characterize their reactions as represented by the Examiner." The examiner respectfully

Art Unit: 1609

disagrees, since the reaction conditions recited by Ito and Minami are exactly those of the instant case (see experimental part). The appropriate scheme of Ito is reproduced below:



The scheme cited by applicant has failed to show the use of benzoquinone. The only difference is the substrate used which was shown by Bhattacharya to undergo the reaction at hand without Pd. While the applicant believes that "One of ordinary skill in the art would know how to make compounds for use in the present inventive methods using routine experimentation coupled with information known in the art. (pg. 12)" a conflicting opinion is expressed at pg. 16 "Lactam compounds and ester compounds are two different classes of compounds having different properties. The lactam group and the ester group have different polarities and yield entirely different chemical reactions, as is known to one of ordinary skill in the art. To combine the properties of these two classes of compounds in a general manner is simply not allowable. Lactam compounds are different from ester compounds and the reactions saturated ester compounds cannot simply be applied to amide compounds." The examiner disagrees. It is well within ordinary skill of the organic chemist to recognize which atoms in a molecule are undergoing a transformation and immediately apply said reaction to other molecules, this what the chemist of ordinary skill does on a daily basis. One of ordinary skill would immediately

Art Unit: 1609

recognize that the transformations of Minami and Ito could be applied to silyl ketene aminals as well as other compounds (silyl ketene thioacetals for instance). Indeed the title of Ito's publication suggests it "The synthesis of α - β unsaturated carbonyl compounds....." Bhattacharya shows that it would in fact work with the silyl ketene aminals even in the absence of Pd with quinone (chinone or kinone). One would be motivated to do so because lactams and other amides are important cores of drug structures. The test under 103 is whether in view of the prior art the invention as a whole would have been obvious at the time it was made, and this is the case here.

10. In response to applicant's argument based upon the age of the references, contentions that the reference patents are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1609

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David K. O'Dell whose telephone number is (571) 272-9071.

The examiner can normally be reached on Mon-Fri 7:30 A.M.-5:00 P.M EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang who can be reached at (571)-272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cecilia Tsang
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SUPERVISORY PATENT EXAMINER